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THE ROLE OF BUSINESS UNIT SIZE IN
DIVESTMENT DECISION-MAKING

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Empirical research on divestment decision-making is reported, focusing on the role of business unit size in such decisions. Data from two related field studies show unit size to have an important impact on divestment decision-making. Strategists should give more attention to the size variable when considering additions to corporate portfolios of business.

INTRODUCTION

Since the 1960's, a large proportion of Fortune 500 firms have pursued, in varying degrees, strategies of diversification, often by acquisition. As a result, both corporate managers and policy researchers have in recent years been giving attention to the area of corporate portfolio theory and consequently to divestment decision-making. Studies of barriers to exit from businesses (Porter, 1976; Harrigan, 1980), of firms' use of the divestment strategy (Patton and Duhaime, 1978), and of influences on firms' decisions to divest business units (Duhaime, 1981) have begun to address the issues on the reduction side of corporate portfolio composition decisions. Corporate managers want to better understand the divestment decision process, in part because it is so often a difficult experience for their firms and themselves, but also because improving that understanding might aid their future decisions on corporate expansions.

This paper examines the evidence which two recent field studies of divestment decision-making provide on the influence of business unit size on that decision-making and on the relationship between divested unit size and other variables such as divestment motivation. Its contribution to research and management knowledge is significant, for the findings suggest the existence of lower limits on unit size, which may override conventional management wisdom (that is, to enter businesses on a small scale and expand later) and necessitate refinements in commonly applied criteria for corporate acquisitions and internal expansion.

Previous research is limited on both divestment decision-making and unit size; no research linking the two, prior to the studies reported here, is known. Porter's work on exit barriers (1976) has contributed to research on divestment; Gilmour's (1973) thesis and the stream of research reported here are the primary works dealing specifically with divestment decision-making. Several handbooks on divestment have been written to guide managers through implementation of divestment decisions (Lovejoy, 1971; Vignola, 1974; Bing, 1978). Some areas of

the strategic management literature which have been particularly important to this stream of research include life cycle theory and endgame strategies, stages of corporate development and corporate portfolio theory, although their contributions were not specifically related to the unit size issue discussed here.

The issue of "size" has been addressed frequently in policy and organizational research (for example, Beard, 1978; Cook, 1981; Grinyer and Yasai-Ardekan, 1981). The level of analysis, however, is nearly always organizational size, sometimes broadened to organizational domains or larger social systems, as discussed by Ford and Slocum (1977), or occasionally narrowed, as by Miller and Springate (1978) to classifications of organizational size by measures of their base business, for greater sample homogeneity.

By contrast, the size issue of interest in this research is that of unit size. More specifically, we are interested in the relation of unit size to corporate divestment decision-making, thus in a unit's size relative to the size of its parent organization.

Some researchers have used unit size (share of firm's sales) in constructing measures of other variables, as did Montgomery (1979) for a comprehensive index of firm diversity, but few have studied unit size itself and its relation to decision-making. Although there is not yet a research base on unit size to draw upon, this variable should be of increasing interest in policy research because past trends toward diversification have already led to organization of firms by product-market divisionalization and by strategic business units (SBU's), and to increased use of "corporate portfolios of business units" as a framework for both managerial and research thinking.

Despite the lack of scholarly attention to unit size, the contemporary business press offers examples of corporate business portfolio decision-making in which size appears to have been an influence. Those examples generally involve large unit size (such as the difficulty of locating possible buyers for a very large business or the necessity of selling unprofitable units whose large size

made them eyesores). Although such reports in the business press have suggested to us that unit size is a decision-making influence, research was needed to determine whether such influences occurred only with large size units, or whether only instances involving large units were reported in that press. This research, therefore, contributes to the policy literature by addressing two increasingly important and little researched areas: divestment decision-making and business unit size.

RESEARCH METHODS

This paper reports findings on unit size and divestment decision-making in two related studies. Both were field studies, the first using mail surveys supplemented with a small number of personal interviews and the second using personal interviews supplemented with public information.

The first study, preliminary results of which were summarized in Patton and Duhaime (1978) and Duhaime and Patton (1980), used a nationwide sample of large (annual sales more than $100 million) divesting firms. Responses from more than 60% of the 115 firms to which mail surveys were sent, together with in-depth personal interviews at five large firms in the Pittsburgh area, provided data on nearly 100 divestments in the 1972-1978 period, 85% of which were made in 1975 or later. More than 60% of the returned questionnaires were completed by the person responsible for the firm's planning or corporate development staff, many by executive officers of the firms. The personal interviews were conducted with a Chief Executive Officer, a President, and three persons responsible for the Planning/Corporate Development functions of their firms.

The mail survey study provided data about size of the divested units and their profitability before divestment, firms' motivations for making specific divestments, and some aspects of firms' divestment decision processes, including which levels of the organizations were involved in different phases of the process.

The second study utilized semi-structured interviews with executives of forty Fortune 500 firms for data collection, providing information on fifty-nine

separate divestments in the 1975-80 period. Because of the financial constraints of personal interviewing, sample firms consisted of Fortune 500 divesting firms headquartered in four large cities (Chicago, Cleveland, New York and Pittsburgh). Since firms headquartered in those cities constituted 20% of the Fortune 500, such geographical limitations were not expected to seriously bias the sample. The interviews were conducted by the first author of this paper with persons familiar with their firms' recent divestment decisions and the influences on those decision processes. Interviewees' positions ranged from Manager to President; most were Vice Presidents, generally of Planning or Corporate Development.

The personal interview study provided data about size of divested units and their profitability before divestment, relationships between divested units and their firms' other units, firms' financial positions when making divestment decisions, and a number of other size-related issues which were raised during the interviews. Analysis of the studies, discussed in the next section, shows that interesting and important results are obtained when certain of these variables are examined in relation to divested unit size.

RESULTS

In both studies, divested unit size was measured by unit's annual sales as a percent of total firm annual sales, as reported by the firms. We then classified units as small if their sales represented 1% or less of their parent firm's sales, medium-size if sales were 1.1% to 5% of firm's sales, and large if sales were greater than 5% of firm's sales. In the mail study, 27 units were in the smallest category, 40 in the medium category and 24 in the large category.

Referring still to the mail survey, the researchers classified the reasons firms gave for divesting units as aggressive or defensive types on the basis of whether the firm divested as a voluntary strategic option (reasons such as shifting the firm's strategic emphasis or providing cash for a more closely

aligned acquisition) or for less voluntary reasons (such as obsolescence or elimination of an unprofitable unit).

Divestment Reason Chi square analysis of the data showed that unit size was significantly related to type of reason for divestment. It seemed reasonable to hypothesize that large units would be divested for defensive reasons, medium and small units for more aggressive reasons; a broader base of managers committed to large units might cause such units to be retained until their turnaround seemed impossible, while smaller units allowed management greater flexibility of choice.

The data, however, showed a curvilinear relationship between unit size and type of divestment reason. As seen in Table 1, defensive reasons were given significantly more frequently as the primary reason for divestment for both small and large units, while aggressive reasons were mentioned most frequently for medium-sized units. Analysis of units' profitability before divestment provides a clue to explanation of this relationship: three-fourths of the medium-sized units were profitable in two of their last three years in their firms, while three-fourths of the small and large units were not profitable in the same period. This is consistent with the explanation that small units as well as large are divested for defensive reasons because small units' lack of visibility allows them and their problems to be buried in the firm until they deteriorate to such unprofitable positions that divestment is the only remedy available to the firm.

Level of Personnel Involved The mail study also revealed a number of significant differences concerning the size of the divested unit and the level of personnel involved in the decision to divest. It was hypothesized that the larger the unit divested, the higher the level of personnel involved in various aspects of the decision process. The data showed that generally managers of the smaller units had greater influence in the decision to divest than did managers of the larger units, particularly if the units were profitable. As shown in Table 2A, initiation or primary motivation for divestment consideration came as frequently from the division or unit staff as from the corporate staff when the unit was

Table 1

Divested Unit Size Related to Type of Divestment Reason

Size	Reason: Aggressive	Reason: Defensive	X^2	df	sig.
0-1%	11	16			
1.1-5%	27	13	9.98	2	.007
over 5%	7	17			

Table 2

Divested Unit Size Related to Divestment Initiator
and to Divestment Decision-Maker

Initiator

	Size	Board of Directors	Corporate Staff	Division or Unit Staff	Other or Joint	X^2	df	sig.
	0-1%	0	11	11	5			
A	1.1-5%	2	25	9	2	15.0	6	.02
	over 5%	0	21	1	2			

Decision-Maker

	Size	Board of Directors	Corporate Staff	Division or Unit Staff	Other or Joint	X^2	df	sig.
	0-1%	1	23	3	0			
B	1.1-5%	6	32	1	0	8.87	6	.18
	over 5%	3	20	0	1			

small. However, the corporate staff was the primary motivator for the divestment decision in 66% of the medium-sized units and in 88% of the large units. Examination of levels of the actual decision-makers shows that size differences between the divested units were not significant (see Table 2B). However, we can observe a tendency for the divestment decision to be made at lower levels for the smaller units than the larger.

An analysis of the roles of various management levels in studying the divestment possibility and making the divestment decisions concerning units of differing sizes shows results consistent with the above findings. Boards of Directors were active in studying the divestment possibilities in only 14% of the smallest units, but in 32% of the medium-sized units and 44% of the larger units (but these differences were significant only at the .13 level). In the decision to divest, the Board had a significantly greater role regarding the medium and large size units than the smaller units (X^2=22.1, p=.001). The Board participated in 90% of the decisions in the two larger categories, but only 63% of the decisions to divest the small units. A similar pattern is found in the influence of other corporate level executives. The Chairman of the Board and President were likely to be more involved in study of divestiture of large units than small units (p=.002 and .001, respectively), while division and unit management were more active in both the study and decision to divest smaller units than larger or medium size units (p=.005). Top management typically made the decision to divest units of any size, consistent with prior research (Gilmour, 1973; Shillinglaw, 1959). Division management was active in divestment decisions for 46% of the small units, 11% of the medium units and 15% of the large units; unit management was active in 25% of the decisions to divest small units, but in less than 10% of decisions regarding medium or large units.

These findings were extended by analyzing influence in the study and decision-making process by size of divested unit, controlling for whether or not the unit was profitable. Again, the Board of Directors was significantly more involved

in the divestment process for larger units and unit management in that of smaller units. This difference was somewhat less for unprofitable units than profitable ones, but unit management continued to be significantly more active in the divestment process of even unprofitable units than was unit management of moderate and large size units (X^2=17.7, p=.007). When a unit of any size became unprofitable, it seemed to attract more attention from top management as a divestment candidate. However, management at the division and unit level had somewhat more influence in the divestment process of smaller units, even when the units were unprofitable.

In the second study, 59 divestment decisions were examined. Of the 52 on which size data were available, 42% were small units, 26% were medium-size units and 22% were large. Our analysis of this data focused on relationships between divestment decision, unit size, and various measures of firms' financial positions, and on those between divested unit size and units' relationships with their firms' other units.

Firm Financial Position As a result of the first study, it was hypothesized that various corporate-level financial considerations might influence divestment decisions differently according to the size of the divested unit, increasing in importance with divested unit size. Interviewees were asked what influence debt/equity ratio, dividend policy and stock price had on the divestment decision. There was a consistent and generally significant tendency for stock price (X^2=17.5, p=.0015), dividend policy (X^2=6.94, p=.03), and debt/equity ratio (X^2=3.87, p=.14) to exert greater influence in the decision to divest larger units than medium units and medium-size units than small units. This is supported by a positive correlation of at least .05 significance between unit size and influence of these financial factors on decision to divest.

The overall financial strength of the firm was also believed to be of importance in decisions to divest. Firm financial strength can be gauged by external standards (for example the firm's return on equity (ROE) compared to its

industry's average ROE) or by internal standards (the firm's current financial performance compared to its own prior performance). It was expected that divestments would be made more often under conditions of low firm financial strength than high, and in particular that large units would tend to be divested when firm financial strength was low. The data showed that a significantly large proportion of the firms had low financial strength by external standards at the time the studied divestment decisions were made. There were no significant differences among size groups of divested units.

However, size differences do appear when considering the firm's financial strength according to internal standards. On the basis of return on equity (in the year preceding the decision versus the average of the prior three years), firms reporting small divestments were generally characterized by high strength, and large divestments were generally characterized by low strength (X^2=7.23, p=.03). Similarly, on the basis of dividend payout ratio (compared to its prior ratio, over the preceding three years), high strength firms were associated with small divestments while low strength were associated with medium and large divested units (X^2=8.9, p=.01). An association of similar direction was found between firms with a strong debt/equity position and small divestments and weaker firms with larger divestments (X^2=4.96, p=.08). A measure of overall firm financial strength as perceived by the interviewer from interviewee's comments was also compared to size of the divested unit. On this overall but more subjective measure, the same relationship held (X^2=11.9, p=.003). Thus there is a consistent association over four different measures for small units to be divested by financially strong firms and medium to large units to be released by somewhat weaker firms.

Unit relatedness Though less extensive, our findings about unit size and units' relatedness to their firms' other units were important and confirmed our hypothesis. Small divested units had significantly less relationship to other units of their firms than did medium or large units. Two-thirds of the medium

and large units divested had some technical, market or vertical integration synergies with other units in their firms. However, only 20% of the small units had important relationships to other units (X^2=9.8, p=.01). While divested unit relatedness to other units was generally low, the finding that large units exhibited more relatedness is interesting because it is consistent with the notion that a broader base of commitment in the firm to a larger unit results in the delay of its divestment until forced by lack of profitability. Similarly, the lack of relatedness which small units exhibit may allow their problems to go unnoticed in the firm until unprofitability increases their visibility and forces divestment. We would note, however, that a smaller proportion of the small units were unprofitable in this sample than in the earlier study.

Other Interview Findings Interviewee comments shed additional light on the relationship between unit size and divestment decision-making. They confirmed what earlier mentioned reports in the business press had suggested: that large units with stubborn problems were viewed as eyesores. Divestment of such units was necessary before the firm's internal morale as well as external confidence in its top management's ability could be restored. Therefore, it is consistent that the Board of Directors, Chairman, President and senior corporate management would be involved in initiation, study and divestment decisions for large units simply as a matter of credibility maintenance, personal pride or concern for the effects an unprofitable large unit might exert on the firm's financial status and on their personal performance evaluations.

Interviewees also reported that small size affected divestment decision-making due to disproportionate claims on management time, disproportionate performance requirements imposed on small units and limited relationships to other firm units. First, a small unit required some valuable and expensive top management time to supervise the unit. Even if the unit did not require more management time than other units, the time cost incurred was often viewed as too high in relation to the benefits the unit offered the firm. However, where management

was unfamiliar with the small unit's business, this cost/benefit imbalance was magnified as the small unit required more than its share of management attention and thus became a candidate for divestment.

Several executives also indicated that returns on small units had to be abnormally high for top management to stay interested in them. When such units developed problems, there was a tendency to divest rather than invest management time and scarce financial resources in attempting to find solutions to their problems. This might be related to the tendency to divest small units for defensive rather than aggressive reasons. When a small unit became unprofitable, it appeared to be easier to divest it than deal with it.

A few respondents indicated that small units occasionally got "lost" within firm's more profitable groups. Data on small units' performance were sometimes buried in aggregate division performance reports.

CONCLUSIONS

This research indicates that business unit size is an important influence in divestment decision-making. Firms apparently have more flexibility in deciding to divest small units than large units. From the unit's perspective, as long as it makes average or better profits and demands little or no top management attention, its own management is likely to be involved in any consideration of or decision processes to divest it. If the small unit is not profitable, its management may still have a role in the decision process, but lack of synergies with other units, together with skepticism that it is worth the trouble to remedy small units' problems, will often lead to divestment as the firm's solution when a unit encouters difficulty.

However, with larger units, divestment decisions are influenced less by the management time required to solve the unit's problems; rather, divestment decisions are influenced by the effects that not solving (or divesting) the problem will have on the firm's image and financial position. Top corporate management will intervene and divest a large unit which is having problems that might

affect stock price, dividend policy, or debt/equity ratios. Since divestment of larger units is associated with lower (than prior years) firm performance, it is possible that the divested unit had been a drain on profits and was divested only after a concerted effort to solve its problems had met with failure.

Unit size was thus found to be significantly related to types (aggressive/ defensive) of reasons for divestments, to organizational levels involved in the divestment decision process, and to influences of firms' financial positions and of inter-unit relationships on those decisions, confirming a number of hypotheses of this research. The fact that small units are being divested for defensive reasons, as seen in the mail study, and because of disproportionate claims on management time, as reported in the interviews, suggests to us that there may be "minimum efficient sizes" for units in the business portfolios of large diversified firms, below which business units will probably prove unsatisfactory and should not be acquired or developed. That minimum size may be determined by the degree of relatedness between a business unit and its firm's other units (the less related, the larger the minimum workable size). Other factors which may influence efficient unit size include concentration level in the unit's industry, size and strategic classification of the firm, and degree of centralization of parent firms. Further research is needed to determine which factors influence appropriate unit size and what those efficient sizes are.

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